### ATTACHMENT 7 SPECIAL CONDITIONS RATIONALE

### VPDES PERMIT PROGRAM LIST OF SPECIAL CONDITIONS RATIONALE

Name of Condition:

B. Boiler /Metals Cleaning Requirements (from current permit)

Rationale: In accordance with the VPDES Permit Regulation, 9 VAC 25-31-210, the Board shall establish conditions, on a case-by-case basis, to provide for and assure compliance with the Water Control Law, the clean Water Act and regulations. In addition, 9 VAC 25-31-190 Section H. allows the Board to require the permittee to furnish information to determine the effects of a discharge on the quality of State waters. It was decided, based on best professional judgment, that the submittal of boiler cleaning data can be used to determine if the effects of the discharge require a limit for copper.

C. Alternative Disinfection and Enterococci Monitoring for Outfall 206

Rationale: Required by the State Water Control Law, section 62.1-44.14 (3a) and the State's Water quality Standards (9 VAC 25-260-140). In addition, the VPDES Permit Regulation, 9 VAC 25-31-220 D. and 40 CFR 122.44 (d) require limits necessary to meet water quality standards.

- D. OTHER REQUIREMENTS OR SPECIAL CONDITIONS
- 1.a. Water Quality Standards Reopener

Rationale: The VPDES Permit Regulation, 9 VAC 25-31-220 D requires effluent limitations to be established which will contribute to the attainment or maintenance of water quality criteria.

1.b. Nutrient Enriched Waters Reopener

Rationale: The Policy for Nutrient Enriched Waters, 9 VAC 25-40 -10 allows reopening of permits for discharges into waters designated as nutrient enriched if total phosphorus and total nitrogen in a discharge potentially exceed specified concentrations. The policy also anticipates that future total phosphorus and total nitrogen limits may be needed.

1.c. Total Maximum Daily Load (TMDL) Reopener

Rationale: For specified waters, Section 303(d) of the Clean Water Act requires the development of total maximum daily loads necessary to achieve the applicable water quality standards. The TMDL must take into account seasonal variations and a margin of safety. In addition, Section 62.1-44.19:7 of the State Water Control Law requires the development and implementation of plans to address impaired waters, including TMDLs. This condition allows for the permit to be either modified or, alternatively, revoked and reissued to incorporate the requirements of a TMDL once it is developed. In addition, the reopener recognizes that, in according to Section 402(o)(1) of the Clean Water Act, limits and/or conditions may be either more or less stringent than those contained in this permit. Specifically, they can be relaxed if they are the result of a TMDL,

basin plan or other wasteload allocation prepared under Section 303 of the Act.

2. Licensed Operator Requirement

Rationale: The Permit Regulation, 9 VAC 25-31-200 D and Code of Virginia 54.1-2300 et. seq., Rules and Regulations for Waterworks and Wastewater Works Operators (18 VAC 160-20-10 et seq.) requires licensure of operators.

3. Operations & Maintenance (O & M) Manual

Rationale: The State Water Control Law, Section 62.1-44.21 allows requests for any information necessary to determine the effect of the discharge on State waters. Section 401 of the Clean Water Act requires the permittee to provide opportunity for the state to review the proposed operations of the facility. In addition, 40 CFR 122.41 (e) requires the permittee, at all times, to properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) in order to achieve compliance with the permit (includes laboratory controls and QA/QC).

4. Notification Levels

Rationale: The VPDES Permit Regulation, 9 VAC 25-31-200 and 40 CFR  $\overline{122.42}$  (a) require notification of the discharge of certain parameters at or above specific concentrations for existing manufacturing, commercial mining and silvicultural discharges.

5. Ouantification Levels Under Part I.A.

Rationale: States are authorized to establish monitoring methods and procedures to compile and analyze data on water quality, as per 40 CFR part 130, Water Quality Planning and Management, subpart 130.4. Section b. of the special condition defines QL and is included per BPJ to clarify the difference between QL and MDL.

6. Compliance Reporting Under Part I.A.

Rationale: Defines reporting requirements for toxic parameters and some conventional parameters with quantification levels to ensure consistent, accurate reporting on submitted reports.

7. Materials Handling and Storage

Rationale: The VPDES Permit Regulation, 9 VAC 25-31-50 A., prohibits the discharge of any wastes into State waters unless authorized by permit. The State Water Control Law, Sec. 62.1-44.18:2, authorizes the Board to prohibit any waste discharge which would threaten public health or safety, interfere with or be incompatible with treatment works or water use. Section 301 of the Clean Water Act prohibits the discharge of any pollutant unless it complies with specific sections of the Act.

8. Cooling Water and Boiler Additives

<u>Rationale</u>: Chemical additives may be toxic or otherwise violate the receiving stream water quality standards. Upon notification, the

regional office can determine if this new additive will warrant a modification to the permit.

9. Outfall 010

Rationale: Best Professional Judgment to include clarification for interim and final limits at this outfall and to address periodic screen cleaning operations at this outfall.

10. Section 316(b) Phase II Requirements

The facility is required to be in compliance with existing 316(b) regulations. These regulations are scheduled for modification in 2012; at that time the permittee must meet any new requirements in the 316(b) regulation. The permit contains a reopener to allow the regulatory agency to modify the permit to include new 316(b) requirements once the regulation is finalized.

11. Polychlorinated Biphenyl (PCB) Compounds

<u>Rationale</u>: Federal Effluent Guidelines 40 CFR Part 423. The special condition language is as written in the previous permit.

12. Overflow of Untreated Coal Pile Runoff from a 10-Year/24-Hour Storm

Rationale: Federal Effluent Guidelines 40 CFR Part 423. The special condition language is as written in the previous permit.

13. Collected Debris for Trash Intake

<u>Rationale</u>: Best Professional Judgment to prevent collected debris on the intake trash and fish return lines from being returned to the receiving stream.

14. Mixing Zone Requirements

Rationale: Best Professional Judgment. This special condition and specific language for a mixing zone is based on an agreement between Virginia Power and the State Water Control Board. The agreement was reached some years ago and has been carried forward with this permit after review of the mixing zone boundaries and past data. The current boundaries are sufficient to protect the temperature standard at the mixing zone boundary lines.

15. Total Residual Chlorine Discharge Duration

Rationale: Federal Effluent Guidelines 40CFR Part 423.13 (b)(2).

16. Coal Unloading Dock Conditions and BMP's

Rationale: The Clean Water Act 402(p)(2)(B) requires permits for storm water discharges associated with industrial activity. VPDES permits for storm water discharges must establish BAT/BCT requirements in accordance with 402(p)(3) of the Act. The VPDES

Permit Regulation, 9 VAC 25-31-220 K., and 40 CFR 122.44 (k) allow BMPs for the control of toxic pollutants listed in Section 307 (a)(1), and hazardous substances listed in Section 311 of the Clean Water Act where BMPs are needed to accomplish the purpose/intent of the law. These conditions set forth additional site-specific storm water best management practices to reduce or minimize the discharge of pollutants to the receiving stream. Use of these conditions is a BPJ determination based on the EPA storm water multi-sector general permit for industrial activities and DEQ's general permit for storm water associated with industrial activities and is consistent with those permits.

### E. TOXICS MANAGEMENT PROGRAM (TMP)

Rationale: To determine the need for pollutant specific and/or whole effluent toxicity limits as may be required by the VPDES Permit Regulation, 9 VAC 25-31-220 D. and 40 CFR 122.44 (d). See Attachment 9 of this fact sheet for additional justification.

### F. STORM WATER MANAGEMENT CONDITIONS

 Sampling Methodology for Specific Outfalls 003, 010, 011, 012, 016, 017, 030

<u>Rationale</u>: Defines methodology for collecting representative effluent samples in conformance with applicable regulations.

2. Storm Water Management Evaluation

Rationale: The Clean Water Act 402(p) (2) (B) requires permits for storm water discharges associated with industrial activity. VPDES permits for storm water discharges must establish BAT/BCT requirements in accordance with 402(p)(3) of the Act. The Storm Water Pollution Prevention Plan is the vehicle proposed by EPA in the final NPDES General Permits for Storm Water Discharges Associated with Industrial Activity (Federal Register Sept 9, 1992) to meet the requirements of the Act. Additionally, the VPDES Permit Regulation, 9 VAC 25-31-220 K., and 40 CFR 122.44 (k) allow BMPs for the control of toxic pollutants listed in Section 307 (a)(1), and hazardous substances listed in Section 311 of the Clean Water Act where numeric limits are infeasible or BMPs are needed to accomplish the purpose/intent of the law.

Finally, the EPA produced a document dated August 1, 1996, entitled "Interim Permitting Approach for Water Quality- Effluent Limitations in Storm Water Permits". This document indicated that an interim approach to limiting storm water could be through the use of best management practices rather than numerical limits. EPA pointed out that Section 502 of the Clean Water Act (CWA) defined "effluent limitation" to mean "any restriction on quantities, rates, and concentrations of constituents discharged from point sources. The CWA does not say that effluent limitations need be numeric." The use of BMPs falls in line with the Clean Water Act which notes the need to control these discharges to the maximum extent necessary to mitigate impacts on water quality.

3. General Storm Water Conditions

### a. Sample Type

Rationale: This stipulates the proper sampling methodology for qualifying rain events from regulated storm water outfalls. Use of this condition is a BPJ determination based on the EPA storm water multi-sector general permit for industrial activities and is consistent with that permit.

### b. Recording of Results

Rationale: This sets forth the information which must be recorded and reported for each storm event sampling (ie. date and duration event, rainfall measurement, and duration between qualifying events). It also requires the maintenance of daily rainfall logs which are to be reported. This condition is carried over from the previous storm water pollution prevention plan requirements contained in the EPA storm water baseline industrial general permit.

### c. Sampling Waiver

Rationale: This condition allows the permittee to collect substitute samples of qualifying storm events in the event of adverse climatic conditions. Use of this condition is a BPJ determination based on the EPA storm water multi-sector general permit for industrial activities and is consistent with that permit.

### d. Representative Discharge

Rationale: This condition allows the permittee to submit the results of sampling from one outfall as representative of other similar outfalls, provided the permittee can demonstrate that the outfalls are substantially identical. Use of this condition is a BPJ determination based on the EPA storm water multi-sector general permit for industrial activities and is consistent with that permit.

### e. Quarterly Visual Examination of Storm Water Quality

Rationale: This condition requires that visual examinations of storm water outfalls take place at a specified frequency and sets forth what information needs to be checked and documented. These examinations assist with the evaluation of the pollution prevention plan by providing a simple, low cost means of assessing the quality of storm water discharge with immediate feedback. Use of this condition is a BPJ determination based on the EPA storm water multi-sector general permit for industrial activities and is consistent with that permit.

### f. Releases of Hazardous Substances or Oil in Excess of Reportable Quantities

Rationale: This condition requires that the discharge of hazardous substances or oil from a facility be eliminated or minimized in accordance with the facility's storm water

pollution prevention plan. If there is a discharge of a material in excess of a reportable quantity, it establishes the reporting requirements in accordance with state laws and federal regulations. In addition, the pollution prevention plan for the facility must be reviewed and revised as necessary to prevent a reoccurrence of the spill. Use of this condition is a BPJ determination based on the EPA storm water multi-sector general permit for industrial activities and is consistent with that permit.

### g. Allowable Non-Storm Water Discharges

Rationale: The listed allowable non-storm water discharges are the same as those allowed by the EPA in their multi-sector general permit, and are the same non-storm water discharges allowed under the Virginia General VPDES Permit for Discharges of Storm Water Associated with Industrial Activity, 9 VAC 25-151-10 et seq. Allowing the same non-storm water discharges in VPDES individual permits provides consistency with other storm water permits for industrial facilities. The non-storm water discharges must meet the conditions in the permit.

### 4. Storm Water Pollution Prevention Plan

Rationale: The Clean Water Act 402(p) (2) (B) requires permits for storm water discharges associated with industrial activity. VPDES permits for storm water discharges must establish BAT/BCT requirements in accordance with 402(p)(3) of the Act. The Storm Water Pollution Prevention Plan is the vehicle proposed by EPA in the final NPDES General Permits for Storm Water Discharges Associated with Industrial Activity (Federal Register Sept 9, 1992) to meet the requirements of the Act. Additionally, the VPDES Permit Regulation, 9 VAC 25-31-220 K., and 40 CFR 122.44 (k) allow BMPs for the control of toxic pollutants listed in Section 307 (a)(1), and hazardous substances listed in Section 311 of the Clean Water Act where numeric limits are infeasible or BMPs are needed to accomplish the purpose/intent of the law.

### 5. Facility-specific Storm Water Management Conditions

Rationale: These conditions set forth additional site-specific storm water pollution prevention plan requirements. Use of these conditions is a BPJ determination based on the EPA storm water multi-sector general permit for industrial activities and DEQ's general permit for storm water associated with industrial activities and is consistent with those permits.

### ATTACHMENT 8

TOXICS MONITORING/TOXICS REDUCTION/
WET LIMIT RATIONALE

### **MEMORANDUM**

### VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY TIDEWATER REGIONAL OFFICE

5636 Southern Boulevard

Virginia Beach, VA 23462

SUBJECT: TMP language for Dominion Virginia Power Chesapeake Plant (VA0004081)

TO:

Melinda Woodruff

FROM:

Deanna Austin

DATE:

11/2/11

COPIES:

Dominion Virginia Power-Chesapeake Plant is located in Chesapeake, VA. There are a number of outfalls onsite that require toxicity monitoring. Outfalls 001 and 002 discharge to Deep Creek to the southern branch of the Elizabeth River. Outfalls 003, 010, 011, 012, 016, and 030 discharge to the Southern Branch of the Elizabeth River. The following table documents the discharge sources at each of the toxicity monitored outfalls during the current permit (1/07-1/12).

| Outfall Number | Discharge Sources   |
|----------------|---|
| 001            | Once through condenser cooling water, demineralizer regeneration waste, reverse osmosis wastewater, stormwater  |
| 002            | From the Ash Pond including boiler blowdown, floor drains, sewage, bottom ash sluice landfill runoff, metals wastes, structural fill runoff/leachate, sumps, cooling tower blowdown, equipment wash water, coal pile runoff                   |
| 003            | Stormwater runoff from the coal pile, fuel oil tank area, combustion turbine area, and overflow from synfuel wash water, coal dock stormwater and wash water  |
| 010            | Stormwater runoff from areas surrounding ash silos and truck wash   |
| 011            | Storm water from loop (rail) track area that includes construction maintenance laydown area (steel fabrication, portable diesel and gasoline storage, equipment storage, lime staging, south oil storage tank and material/equipment/laydown) |
| 012            | Storm water runoff from dismantled diesel tank diked area and loop track area   |
| 016            | Storm water runoff from road providing ingress and egress for the ash silos, warehouse docks, sewage treatment building, ash haul road and scales, a laydown area, carbon burn out operations (CBO)   |
| 030            | Stormwater runoff from the coal unloading dock. (There has been no discharge during this permit term)   |

During the last permit term outfalls 001, 002, 003, 010, 011, 012 and 016 were sampled. The data collected is presented in the tables below.

| OUTFALL | DESCRIPT           | SPECIES | SAMPLEDT | LC50                                | SURVIVAL | NOEC | ΤÜ | SAMPLETYPE | LAB |
|---------|--------------------|---------|----------|-------------------------------------|----------|------|----|------------|-----|
| 001     | 1st Annual Acute   | A.b.    | 7/16/07  | 100                                 | 100      |      | 1  | Grab       | CBI |
| 001     | 1st Annual Chronic | A.b.    | 7/16/07  |                                     | 100      | 100  | 1  | Grab       | СВІ |
| 001     | 2nd Annual Chronic | A.b.    | 6/16/08  | ananningar oga mingret /estrum s to | 100      | 100  | 1  | Grab       | CBI |
| 001     | 2nd Annual Acute   | A.b.    | 6/18/08  | 100                                 | 100      |      | 1  | Grab       | СВІ |
| 001     | 3rd Annual Acute   | A.b.    | 11/2/09  | 100                                 | 100      |      | 1  | Grab       | CBI |
| 001     | 3rd Annual Chronic | A.b.    | 11/2/09  |                                     | 100      | 100  | 1  | Grab       | CBI |
| 001     | 4th Annual Chronic | A.b.    | 3/22/10  |                                     | 100      | 100  | 1  | Grab       | СВІ |
| 001     | 4th Annual Acute   | A.b.    | 3/24/10  | 100                                 | 100      |      | 1  | Grab       | CBI |
| 001     | 5th Annual Acute   | A.b.    | 8/22/11  | 100                                 | 100      |      | 1  | Grab       | СВІ |
| 001     | 5th Annual Chronic | A.b.    | 8/22/11  |                                     | 100      | 100  | 1  | Grab       | CBI |

A.b. - Americamysis bahia

| OUTFALL | DESCRIPT           | SPECIES | SAMPLEDT | LC50                                    | SURVIVAL | NOEC | ΤÜ | SAMPLETYPE | IAB |
|---------|--------------------|---------|----------|---|----------|------|----|------------|-----|
| 002     | 1st Annual Chronic | A.b.    | 8/13/07  | *************************************** | 100      | 100  | 1  | Grab       | СВІ |
| 002     | 1st Annual Acute   | A.b.    | 8/15/07  | 100                                     | 100      |      | 1  | Grab       | СВІ |
| 002     | 2nd Annual Chronic | A.b.    | 5/19/08  |   | 100      | 100  | 1  | Grab       | СВІ |
| 002     | 2nd Annual Acute   | A.b.    | 5/21/08  | 100                                     | 100      |      | 1  | Grab       | CBI |
| 002     | 3rd Annual Chronic | A.b.    | 4/20/09  |   | 100      | 100  | 1  | Grab       | СВІ |
| 002     | 3rd Annual Acute   | A.b.    | 4/22/09  | 100                                     | 100      |      | 1  | Grab       | СВІ |
| 002     | 4th Annual Chronic | A.b.    | 3/22/10  |   | 100      | 100  | 1  | Grab       | СВІ |
| 002     | 4th Annual Acute   | A.b.    | 3/24/10  | 100                                     | 100      |      | 1  | Grab       | СВІ |
| 002     | 5th Annual Acute   | A.b.    | 8/22/11  | 100                                     | 100      |      | 1  | Grab       | СВІ |
| 002     | 5th Annual Chronic | A.b.    | 8/22/11  |   | 100      | 100  | 1  | Grab       | СВІ |

A.b. - Americamysis bahia

| OUTFALL | DESCRIPT         | SPECIES | SAMPLEDT | LC50 | SURVIVAL | ŤU. | SAMPLETYPE | LAB |
|---------|------------------|---------|----------|------|----------|-----|------------|-----|
| 003     | 1st Annual Acute | A.b.    | 2/22/07  | 100  | 100      | 1   | Grab       | СВІ |
| 003     | 2nd Annual Acute | A.b.    | 4/29/08  | 100  | 100      | 1   | Grab       | СВІ |
| 003     | 3rd Annual Acute | A.b.    | 1/6/09   | 100  | 100      | 1   | Grab       | СВІ |
| 003     | 4th Annual Acute | A.b.    | 2/23/10  | 100  | 100      | 1_  | Grab       | СВІ |
| 003     | 5th Annual Acute | A.b.    | 1/18/11  | 100  | 100      | 1_  | Grab       | CBI |
| 010     | 1st Annual Acute | A.b.    | 4/12/07  | 100  | 100      | 1   | Grab       | СВІ |
| 010     | 2nd Annual Acute | A.b.    | 2/13/08  | 100  | 100      | 1   | Grab       | СВІ |
| 010     | 3rd Annual Acute | A.b.    | 1/6/09   | 100  | 100      | 1   | Grab       | СВІ |
| 010     | 4th Annual Acute | A.b.    | 3/3/10   | 100  | 100      | 1   | Grab       | СВІ |
| 010     | 5th Annual Acute | A.b.    | 3/10/11  | 100  | 100      | 1   | Grab       | СВІ |
| 011     | SW Acute         | A.b.    | 2/2/07   | 100  | 80       | 1   | Grab       | СВІ |
| 011     | SW Acute         | A.b.    | 2/7/08   | 100  | 90       | 1   | Grab       | СВІ |

| 011     | SW Acute | A.b.    | 2/10/09  | 100  | 100      | 1  | Grab       | СВІ |
|---------|----------|---------|----------|------|----------|----|------------|-----|
| 011     | SW Acute | A.b.    | 1/19/10  | 100  | 95       | 1  | Grab       | СВІ |
| 011     | SW Acute | A.b.    | 2/16/11  | 100  | 100      | 1  | Grab       | CBI |
| OUTFALL | DESCRIPT | SPECIES | SAMPLEDT | LC50 | SURVIVAL | TU | SAMPLETYPE | LAB |
| 012     | SW Acute | A.b.    | 2/2/07   | 100  | 100      | 1  | Grab       | СВІ |
| 012     | SW Acute | A.b.    | 2/7/08   | 100  | 100      | 1  | Grab       | СВІ |
| 012     | SW Acute | A.b.    | 2/10/09  | 100  | 100      | 1  | Grab       | CBI |
| 012     | SW Acute | A.b.    | 1/19/10  | 100  | 100      | 1  | Grab       | СВІ |
| 012     | SW Acute | A.b.    | 2/16/11  | 100  | 100      | 1  | Grab       | CBI |
| 016     | SW Acute | A.b.    | 3/2/07   | 100  | 85       | 1  | Grab       | СВІ |
| 016     | SW Acute | A.b.    | 1/17/08  | 100  | 100      | 1  | Grab       | СВІ |
| 016     | SW Acute | A.b.    | 1/6/09   | 100  | 100      | 1  | Grab       | СВІ |
| 016     | SW Acute | A.b.    | 8/18/10  | 100  | 100      | 1  | Grab       | СВІ |
| 016     | SW Acute | A.b.    | 3/10/11  | 100  | 100      | 1  | Grab       | СВІ |

A.b. - Americamysis bahia

Outfalls 001 and 002 are recommended to have no changes from the last permit term. Samples shall be taken annually at both outfalls using acute and chronic tests for the test species, *Americamysis bahia*. The need for chronic testing at outfall 001 is due to the continuous flow at the outfall. Outfall 002 can also discharge on a continuous pattern. Both outfalls will be collected with grab samples. There have been no toxicity exceedances during the current permit term.

Outfall 003 is listed under the TMP section as it can experience process wastewater discharges from time to time. Toxicity testing shall continue at outfall 003 on an annual basis using the test species *Americamysis bahia* for acute toxicity. There have been no noted changes with the outfall that would warrant a change in toxicity monitoring.

Outfall 010 has been removed from toxicity monitoring. This outfall no longer has any process wastewater contributions. Also, there has been no toxicity exhibited at this outfall during the last two permit terms.

The stormwater management evaluation section of the reissued permit contains four outfalls: 011, 012, 016, and 030. During the current permit term outfalls 011, 012 and 016 were monitored on an annual basis for acute toxicity. Outfalls 011 and 016 have shown minor survival issues in 100% effluent. Due to the nature of the areas associated with stormwater runoff for these three outfalls, toxicity testing is still recommended. Acute toxicity monitoring with *Americamysis bahia* is required for outfalls 011, 012, and 016.

Outfall 030 was new to the permit during the last reissuance. Due to the areas that the outfall drain for stormwater discharges, toxicity monitoring was added to the permit; however, there has been no discharge during this permit term. The facility sends the discharge to outfall 002 but wants to retain the ability to discharge from outfall 030, because of this; no changes in the toxicity language for 030 will be made. Since this is still considered a new outfall (no data), both species need to be monitored annually to determine if there is a more sensitive species for this outfall. Annual acute toxicity monitoring with both *Americamysis bahia* and *Cyprinodon variegatus* is recommended.

The following toxicity language is recommended for Dominion-Chesapeake VA0004081.

### E. TOXICS MANAGEMENT PROGRAM (TMP)

### 1. Biological Monitoring

a. In accordance with the schedule in E.2.below, the permittee shall conduct annual toxicity tests for the duration of the permit.

The permittee shall collect a grab sample of final effluent from outfalls 001 and 002 in accordance with the sampling methodology in Part I.A. of this permit. The grab samples for toxicity testing shall be taken at the same time as the monitoring for the outfalls in Part 1.A. of this permit. Annual acute and chronic tests shall be conducted for outfalls 001 and 002. The tests to use are:

48 Hour Static Acute test using Americamysis bahia

Chronic Static Renewal 7-day Survival and Growth Test with Americamysis bahia

The permittee shall collect grab samples of final effluent from outfall 003 in accordance with the sampling methodology in Part I.A. and I.F.1. of this permit.

The grab samples for toxicity testing shall be taken at the same time as the monitoring for the outfalls in Part 1.A. of this permit. Annual acute tests shall be conducted for outfall 003. The acute test to use is:

48 Hour Static Acute test using Americamysis bahia

b. The acute tests shall be performed with a minimum of 5 dilutions, derived geometrically, for the calculation of a valid  $LC_{50}$ . Express the results as  $TU_a$  (Acute Toxic Units) by dividing 100/  $LC_{50}$  for reporting.

The chronic tests shall be conducted in such a manner and at sufficient dilutions (minimum of five dilutions, derived geometrically) to determine the "No Observed Effect Concentration" (NOEC) for survival and growth. Results which cannot be quantified (i.e., a "less than" NOEC value) are not acceptable, and a retest will have to be performed. Express the test NOEC as  $TU_c$  (Chronic Toxic Units), by dividing 100/NOEC for reporting. Report the LC50 at 48 hours and the IC25 with the NOEC's in the test report.

Test procedures and reporting shall be in accordance with the WET testing methods cited in 40 CFR 136.3.

c. In the event that sampling of any of the outfalls is not possible due to the absence of effluent flow during a

particular testing period, the permittee shall perform a make-up sample during the next testing period.

- d. The permittee may provide additional samples to address data variability during the period of initial data generation. These data shall be reported and may be included in the evaluation of the effluent toxicity. Test procedures and reporting shall be in accordance with the WET testing methods cited in 40 CFR 136.3.
- e. The test dilutions shall be able to determine compliance with the following endpoints:
  - (1) Acute  $LC_{50}$  of 100% equivalent to a  $TU_a$  of 1.0
  - (2) Chronic NOEC of 100% equivalent to a  $TU_c$  of 1.0

### 2. Reporting Schedule

The permittee shall report the results and supply one complete copy of the toxicity test reports to the Tidewater Regional Office in accordance with the schedule below. A complete report must contain a copy of all laboratory benchsheets, certificates of analysis, and all chains of custody. Attachment A must be submitted with each complete report. All data shall be submitted within 60 days of the sample date.

| (a) | Conduct first annual TMP test for outfalls 001, 002, and 003 using Americamysis bahia       | By December 31,<br>2012  |
|-----|---|--|
| (b) | Submit results of all<br>biological tests   | Within 60 days of<br>the sample date<br>and no later than<br>January 10, 2013                            |
| (c) | Conduct subsequent annual TMP tests for outfalls 001, 002, and 003 using Americamysis bahia | By December 31,<br>2013, 2014, 2015<br>and 2016  |
| (d) | Submit subsequent annual biological tests   | Within 60 days of<br>the sample date<br>and no later than<br>January 10, 2014,<br>2015, 2016 and<br>2017 |

### F. STORM WATER MANAGEMENT CONDITIONS

1. Sampling Methodology for Specific Outfalls 003, 010, 011, 012, 016, 017, 030

The following shall be required when obtaining samples required by Part I.A. of this permit:

- a. At the time of sampling, the permittee shall ensure that the effects of tidal influences are kept to an absolute minimum. This can be achieved by:
  - (1) Sampling at low tide and/or
  - (2) Sampling at a representative point which has been demonstrated to be free of tidal influences
- b. In the event that sampling of an outfall is not possible due to the absence of effluent flow during a particular testing period, the permittee shall provide written notification to DEQ Tidewater Regional Office with the DMR for the month following the period in which samples were to be collected.
- 2. Storm Water Management Evaluation

The Storm Water Pollution Prevention Plan (SWP3), which is to be developed and maintained in accordance with Part I.F.4 of this permit, shall have a goal of reducing pollutants discharged at all the regulated storm water outfalls.

a. Pollutant Specific Screening

The goal shall place emphasis on reducing, to the maximum extent practicable, the following screening criteria parameters in the outfalls noted below.

OUTFALL NO.

POLLUTANTS

016 and 017

Dissolved Zinc

b. Toxicity Screening

The permittee shall conduct annual acute toxicity tests on outfalls 011, 012, and 016 using grab samples of final effluent. These acute screening tests shall be 48-hour static tests using Americanysis bahia, conducted in such a manner and at sufficient dilutions for calculation of a valid LC50.

The permittee shall conduct annual acute toxicity tests on outfall 030 using grab samples of final effluent. The acute screening test shall be 48-hour static tests using Americamysis bahia and Cyprinodon variegatus,

conducted in such a manner and at sufficient dilutions for calculation of a valid LC50.

The tests shall be conducted on a calendar year basis with one copy of all results and supporting information, including Attachment A, submitted within 60 days from the date which the sample was taken and no later than January 10<sup>th</sup> of each year.

Test procedures and reporting shall be in accordance with the WET testing methods cited in 40 CFR 136.3

If any of the biological screening tests are invalidated, an additional test shall be conducted within thirty (30) days of notification. If there is no discharge during this 30-day period, a sample must be taken during the first qualifying discharge.

- c. Sampling methodology for the noted outfalls shall be in accordance with Part I.A. and Part I.F. of this permit. The permittee shall submit the following information with the results of the toxicity tests.
  - (1) The actual or estimated effluent flow at the time of the sampling.
  - (2) An estimate of the total volume of storm water discharged through each outfall during the discharge event.
  - (3) The time at which the discharge event began, the time at which the effluent was sampled, and the duration of the discharge event.
- The effectiveness of the SWP3 will be evaluated via d. the required monitoring for all parameters listed in Part I.A. of this permit for the regulated storm water outfalls, including the screening criteria parameters and toxicity screening. Monitoring results which are either above the screening criteria values or, in the case of toxicity, result in an  $LC_{50}$  of less than 100% effluent, will not indicate unacceptable values. However, those results will justify the need to reexamine the effectiveness of the SWP3 and any best management practices (BMPs) being utilized for the affected outfalls. In addition, the permittee shall amend the SWP3 whenever there is a change in the facility or its operation which materially increases the potential for activities to result in a discharge of significant amounts of pollutants.

By February 10th of each year, the permittee shall submit to the DEQ Tidewater Regional Office an annual report which includes the pollutant-specific and a

**summary** of the biological monitoring data from the outfalls included in this condition along with a summary of any steps taken to modify either the Plan or any BMPs based on the monitoring data.

The first Stormwater Management Evaluation report is due on February 10, 2013.

### ATTACHMENT A

### VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY TMP SUBMITTAL COVER SHEET

THIS REPORT SHALL CONTAIN THE FOLLOWING ITEMS

This form shall be completed for, and submitted with, each report of toxicity testing.

| VPDES PERMIT NUMBER: <u>VA0004081</u>           | COMPLETED CHAIN OF SAMPLE CUSTODY            |
|---|--|
|   | CERTIFICATE OF ANALYSIS(ES)                  |
| FACILITY NAME: Virginia Power-Chesapeake        | COMPLETE REPORT OF TOXICITY TESTING          |
| Energy Center                                   |  |
| CACTITUM IOCAMION. Mongo Chunch Channala        | 1771 00000                                   |
| FACILITY LOCATION: Vepco Street, Chesapeake,    | VA 23320                                     |
|   |  |
| OUTFALL NUMBER (circle one): 001 002            | 003 011 012 016 030                          |
|   | <u> </u>                                     |
| REPORTING PERIOD (ex: 2013 Annual):             |  |
|   |  |
| SAMPLE TYPE (circle one): Stormwater Wa         | astewater                                    |
| MACHENAMED COUNCE (C) (if proceed weet and the  | manida a buist accura de cuintina.           |
| WASTEWATER SOURCE(S) (if process wastewater, p. | rovide a brief source description):          |
|   |  |
|   |  |
|   | ·  |
|   |  |
| SAMPLE EVENT INFORMATION (as applicable):       |  |
|   |  |
| Sample Date and Time of Collection:             |  |
| Time discharge began:                           |  |
|   |  |
| Storm event measurement (inches):               |  |
| <del></del>                                     |  |
| Time between sampling and                       |  |
| last measurable storm event (hours):            |  |
|   |  |
| ADDITIONAL INFORMATION:                         |  |
| If this sample is a make-up sample or a rete    | est, indicate which category of test and the |
| reporting period this submittal applies to:     |  |
| Report Type: (i.e., makeup, retest, etc.)       |  |
|   |  |
| Reporting Period:                               |  |
|   |  |
| If the required TMP sample(s) were not colle    | ected provide a reason/rationale:            |
|   |  |
|   |  |
| CERTIFICATION.                                  |  |
| CRETTE ILATION!                                 |  |

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations. See 18 U.S.C. §1001 and 33 U.S.C. §1319. (Penalties under these statutes may include fines up to \$10,000 and or maximum imprisonment of between 6 months and 5 years.)

ATTACHMENT 9

MATERIAL STORED

- The long-term average concentration was determined as the average of the monthly average concentrations.
- The long-term average mass loading was determined as the average of the monthly average loadings.

### ITEM VI. POTENTIAL DISCHARGES NOT COVERED BY ANALYSIS

The table below shows chemicals that are either in use or may be used within the next five years. In addition to this list, CEC uses numerous chemicals to operate and maintain its equipment, vehicles, and facilities. Examples of these chemicals include lubricants, cleaners, detergents, polishes, waxes, cleaners, cutting oils, sanitizers, paints, solvents, and protectants. The majority of these chemicals are managed in small containers, but some are managed in larger quantities. It is conceivable that these chemicals and chemical types could appear in discharges from CEC at very low concentrations.

CEC occasionally uses fluorescein dye for leak detection purposes. The dye is not toxic to aquatic organisms. Dominion provide will written notice (fax, letter, or email) to DEQ prior to fluoroscein dye use so they are aware of the planned dye discharge and can adequately address any third party or citizen concerns.

| <u> </u>                    | 7<br>it  | 7<br>it  | 7<br>it  | 7<br>it   | 7<br>it  | 7<br>it   | 7.<br>it   | 7<br>it  | 7<br>it                                   | 7<br>it   | 7<br>it   | 7<br>it   | 7<br>it   | it   | 7<br>it                                       | 7<br>it  |                                   |
|-----------------------------|--|--|--|---|--|---|--|--|---|---|---|---|---|--|---|--|-----------------------------------|
| DEQ APPROVAL<br>DATE        | Prior to 2007<br>VPDES permit  | Prior to 2007<br>VPDES permit                      | Prior to 2007<br>VPDES permit                                    | Prior to 2007<br>VPDES permit   | Prior to 2007<br>VPDES permit                  | Prior to 2007<br>VPDES permit                                   | Prior to 2007<br>VPDES permit  | Prior to 2007<br>VPDES permit  | Prior to 2007<br>VPDES permit             | Prior to 2007<br>VPDES permit                             | Prior to 2007<br>VPDES permit                             | Prior to 2007<br>VPDES permit                             | Prior to 2007<br>VPDES permit                             | Prior to 2007<br>VPDES permit                                | Prior to 2007<br>VPDES permit                 | Prior to 2007<br>VPDES permit                        | Prior to 2007                     |
| ойтеал                      | 101*   | 101*   | 002, 201**   | 506**   | 002<br>001***                                  | 600   | 201**  | 002  | 002                                       | 001   | 001   | 001   | 001   | 001  | 002/101*                                      | 002/101*   | 002/101*                          |
| ULTIMATE PRODUCT<br>OR FATE | CaSO <sub>4</sub> , MgSO <sub>4</sub> , Na <sub>2</sub> SO <sub>4</sub> ,<br>H <sub>2</sub> O, FeSO <sub>4</sub> | Na <sub>2</sub> SO <sub>4</sub> , H <sub>2</sub> O | Sodium Salts (Inorganic),<br>H <sub>2</sub> O                    | Ca(OH) <sub>2</sub> , On rare occasions used to chlorinate Sewer House. | NH₄OH, CO₂, H₂O                                | Sodium Salts (Inorganic),<br>CO <sub>2</sub> , H <sub>2</sub> O | Inorganic Calcium Salts,<br>Insoluble Metal Carbonates<br>and Hydroxides | Ca <sub>3</sub> (PO <sub>4</sub> ) <sub>2</sub> , insoluble mono & di Calcium phosphates | Insoluble mono & di<br>Calcium phosphates | CaCl <sub>2</sub> , MgCl <sub>2</sub> , FeCl <sub>2</sub> | CaCl <sub>2</sub> , MgCl <sub>2</sub> , FeCl <sub>2</sub> | CaSO <sub>4</sub> , MgSO <sub>4</sub> , FeSO <sub>4</sub> | CaSO <sub>4</sub> , MgSO <sub>4</sub> , FeSO <sub>4</sub> | NaCl, HCl, SO4   |   |  |                                   |
| PURPOSE                     | Regenerant for<br>Demineralizer  | Regenerant for<br>Demineralizer                    | pH Control of<br>Boiler/Steam Cycle,<br>Passivation of new metal | Chlorination Agent  | pH Control of<br>Condensate/Feedwater<br>Cycle | pH Control, General Plant                                       | Acid Neutralization,<br>Metals Pond                                      | pH Control of<br>Boiler/Steam Cycle  | pH Control of<br>Boiler/Steam Cycle       | pH Control of Reverse<br>Osmosis Units                    | Removal of Cl from city<br>water to Reverse Osmosis<br>Units | Chemical Cleaning of<br>Reverse Osmosis Units | Chemical Cleaning of<br>Reverse Osmosis Units        | Chemical Cleaning of              |
| USAGE/yr                    | ~90 Tons   | 45-60 Dry<br>Tons                                  | ~500 lbs.  | ~300 lbs.   | 1 Ton  | < 1 Ton   | <1-20 Tons   | <1 Ton   | 100 lbs.                                  | 25 - 30 Tons  | 1 – 2 Tons   | 45 – 150 lbs.                                 | 50 – 200 lbs.  | 50 – 200 lbs.                     |
| CHEMICAL                    | Sulfuric Acid  | 50% Sodium Hydroxide<br>(Freeze Point Depressed)   | Sodium Hydroxide   | Calcium Hypochlorite<br>Granular  | Methoxypropylamine                             | Soda Ash (Na <sub>2</sub> CO <sub>3</sub> )                     | Hydrated Calcium Lime  | Trisodium Phosphates   | Disodium Phosphates                       | 20 % HCl  | 30 % HCI  | 25 % H <sub>2</sub> SO <sub>4</sub>                       | 50 % H <sub>2</sub> SO <sub>4</sub>                       | Sodium Metabisulfite   | Flocide ® 375 Liquid Sanitizer (Biocide)      | Filtra Pure Acid Cleaner (Iron<br>Removing Compound) | Filtra Pure TF (Surfactant Agent) |

|   |                   | Davison Ocmocie*  |                                    |                   |                               |
|---|-------------------|---|------------------------------------|-------------------|-------------------------------|
| Brine Salt                                      |                   | For regenerating softeners                                  | CaCl, BaCl, MgCl                   | 101*              | Prior to 2007<br>VPDES permit |
| Hypersperse AF200UL                             | 7000 lbs.         | Antiscalant/Antifoulant<br>for the Reverse Osmosis<br>Units |                                    | 001               | Prior to 2007<br>VPDES permit |
| Hypersperse AS120                               | 7000 lbs.         | Antiscalant for the<br>Reverse Osmosis Units                |                                    | 001               | Prior to 2007<br>VPDES permit |
| Totaline Condenser Cleaner (Non-Acid)           | 2000 lbs.         | Cleaning Steam/Air or Water/Air Heaters                     | КОН                                | 201**             | Prior to 2007<br>VPDES permit |
| Totaline Indoor Coil Cleaner                    | 1500 lbs.         | Cleaning Steam/Air or<br>Water/Air Heaters                  | Sodium Metasilicate                | 201**             | Prior to 2007<br>VPDES permit |
| Totaline Outdoor Condenser<br>Cleaner           | 300 gals.         | Cleaning Steam/Air or<br>Water/Air Heaters                  | HF, H3PO4                          | 201**             | Prior to 2007<br>VPDES permit |
| Cygnet Plus                                     | 10 gals.          | Surfactant for plant eradication                            | Absorption by plants (Phragmites)  | 201**,003,01      | Prior to 2007<br>VPDES permit |
| Rodeo® Emerged Aquatic Weed and Brush Herbicide | 5 gals.           | Plant eradication   | Absorption by plants (Phragmites)  | 201**,003,01<br>1 | Prior to 2007<br>VPDES permit |
| Sodium Hypochlorite                             | 7000-8000<br>gals | Chlorination agent for sewer house                          | носг                               | 200** 002         | Prior to 2007<br>VPDES permit |
| Sodium Hypochlorite                             | 364,000 gals      | Biocide for Condenser<br>and Heat Exchangers                | HOCL                               | 001               | Prior to 2007<br>VPDES permit |
| Hydrazine                                       | 1 Ton             | Oxygen Scavenger  | Ammoniated compounds,<br>H2O       | 002/001***        | Prior to 2007<br>VPDES permit |
| Carbohydrazide (eliminox)                       | 1 Ton             | Oxygen Scavenger  | Ammoniated compounds, H2O          | 002/001***        | Prior to 2007<br>VPDES permit |
| Aqua Ammonia                                    | 1200 tons         | NOx Control   | Ammoniated water                   | 005               | Prior to 2007<br>VPDES permit |
| Anhydrous Ammonia                               | 800 tons          | NOx Control   | Ammoniated water                   | 010               | Prior to 2007<br>VPDES permit |
| Urea  | 400 tons          | NOx Control   | Ammoniated compounds, proteins     | 005               | Prior to 2007<br>VPDES permit |
| GE Betz Reckon Cycle Reagent<br>(L1266)         | 30 gals.          | Tracer for BCW system                                       | MoO4                               | 005               | Prior to 2007<br>VPDES permit |
| Nalco Defoamer FG                               | 2000 gals.        | Canal defoaming agent                                       |                                    | 001               | 05/2007                       |
| Nalco 7468                                      | 2000 gals.        | Canal defoaming agent                                       | SiO2                               | 001               | 05/2007                       |
| Nalco 71-D5                                     | 2000 gals.        | Antifoaming agent   | Hydrocarbon (possible light sheen) | 001               | 05/2007                       |
|   |                   |   |                                    |                   |                               |

| Sodium Nitrite             | ~200 lbs.        | Passivation of new metal  | Sodium salts                            | 201**         | 03/2007       |
|----------------------------|------------------|---------------------------|---|---------------|---------------|
|                            |                  | in Chemical Cleaning      |   |               |               |
|                            |                  | process                   |   |               |               |
| Sodium Bicarbonate         |                  | Control pH at coal pile   | Sodium salts                            | 002, 003      | Prior to 2007 |
|                            |                  | run off                   |   |               | VPDES permit  |
| Aluminum Sulfate           | $\sim 4800$ lbs. | Aid in coal fine settling | Aluminum salts                          | 002,201**     | 03/2008       |
| Kleen MCT403 – Acidic RO   | 55 - 550 lbs.    | Chemical Cleaning of      | Acid phosphate                          | 002,101*      | 8007/90       |
| cleaner                    |                  | Reverse Osmosis Units     |   |               |               |
| Kleen MCT411 - Alkaline RO | 40 - 240 lbs.    | Chemical Cleaning of      | Surfactant products                     | 002,101*      | 007/90        |
| cleaner                    |                  | Reverse Osmosis Units     |   |               |               |
| BiomateMBC881 - Biocide    | 50 - 150  lbs.   | Chemical Cleaning of      | Brominated compounds                    | 002,101*      | 007/90        |
|                            |                  | Reverse Osmosis Units     |   |               |               |
| Hypersperse MDC150         |                  | Antiscalant for the       |   | 001           | 007/90        |
|                            |                  | Reverse Osmosis Units     |   |               |               |
| CC 016                     | 200-400 lbs.     | Chemical Cleaning of      | Acid Phosphate                          | 002,101*      | 12/2009       |
|                            |                  | Reverse Osmosis Units     |   |               |               |
| CC 019                     | 180-360 lbs.     | Chemical Cleaning of      | Surfactant products                     | 002,101*      | 12/2009       |
|                            |                  | Reverse Osmosis Units     | *************************************** |               |               |
| CC 103                     | 3-11 lbs.        | Chemical Cleaning of      | Brominated Compounds                    | 002,101*      | 12/2009       |
|                            |                  | Reverse Osmosis Units     |   |               |               |
| BT 425                     | 40000            | Dust control coal         | Dissolved in water                      | 002, 003, 030 | 5/3/2010      |
| BT-205W                    | 10000            | Dust control coal         | Dissolved in waterc                     | 002.003       | 5/3/2010      |
|                            |                  |                           |   |               |               |

= approximate

Lbs. = pounds

Gals. = gallons

\* These are internal discharges that discharge to Outfall 001.

\*\* These are internal discharges that discharge to Outfall 002.

\*\*\*Could make it to Outfall 001 during startup conditions of Units.

### ITEM VII. BIOLOGICAL TOXICITY TESTING

Americamysis bahia. All toxicity tests conducted for each outfall for the period of 2008-2010 resulted in a LC50 of greater than 100. In accordance with Permit Condition Part I.E., Outfalls 001 and 002 have been tested annually for acute and chronic toxicity with Additionally, the NOEC for growth and reproduction for all tests was 100% effluent.

### ATTACHMENT 10

RECEIVING WATERS INFO./
TIER DETERMINATION/STORET DATA/
STREAM MODELING

### Planning Permit Review

Date: 9/8/2011

To: Kristie Britt, TRO

Permit Writer: Melinda Woodruff

Facility: Dominion - Chesapeake Energy Center

Permit Number: VA0004081

Issuance, Reissuance or Modification (if Modification describe): Reissuance

Permit Expiration Date: 1/23/2012

Waterbody ID (ex: VAT-G15E): VAT-G15E and VAT-G15R

Topo Name: Norfolk South

Facility Address:

2701 Vepco Street Chesapeake, VA 23320

**Receiving Stream:** Attached are topographic maps showing facility property boundaries and outfall(s) locations for those included in this request.

| included in this request.  |                                    |  |  |  |  |
|--|------------------------------------|--|--|--|--|
| Stream Name: See Attached Application for all o                          | utfall and stream information      |  |  |  |  |
| Click here to enter text.  |                                    |  |  |  |  |
| Stream Data Requested? Click here to enter text.                         |                                    |  |  |  |  |
| Outfall #: Click here to enter text.                                     | Lat Lon: Click here to enter text. |  |  |  |  |
| Outfall #: Click here to enter text.  Lat Lon: Click here to enter text. |                                    |  |  |  |  |
| Outfall #: Click here to enter text.  Lat Lon: Click here to enter text. |                                    |  |  |  |  |
| Stream Name (2): Click here to enter text.                               |                                    |  |  |  |  |
| Click here to enter text.  |                                    |  |  |  |  |
| Stream Data Requested? Click here to enter text.                         |                                    |  |  |  |  |
| Outfall #: Click here to enter text.                                     | Lat Lon: Click here to enter text. |  |  |  |  |
| Outfall #: Click here to enter text.                                     | Lat Lon: Click here to enter text. |  |  |  |  |
| Outfall #: Click here to enter text.                                     | Lat Lon: Click here to enter text. |  |  |  |  |

If greater than 2 receiving streams or 3 outfalls per stream please provide a separate table with outfall listings and Latitude Longitude description.

### Planning Review:

|   | cate Outfalls which discharge direct stream segment and parameters in |   |  |  |  |  |  |
|---|---|---|--|--|--|--|--|
| Outfalls 003, 3   | 01, 011, 016, 017, 010, 004, 019, 020 and                             | 1012 discharge to impaired segment VAT-G15E_SBE02A06.                           |  |  |  |  |  |
| Outfalls 001, 018, 013, 015, 031, 201, 206, 002, 101, 030 discharges to impaired segment VAT-G15E_DEC01A06. See Attachment 1. |   |   |  |  |  |  |  |
| Tier Determination  |   |   |  |  |  |  |  |
| Tier  | Both receiving streams are a Ti                                       | Both receiving streams are a Tier 1 water due to impairments. See Attachment 1. |  |  |  |  |  |
| Tier  | Click here to enter text.   |   |  |  |  |  |  |
| Management  | t Plan  |   |  |  |  |  |  |
|   | Referenced in a Management Plan?                                      | NO  |  |  |  |  |  |
| Are limits cont   | ained in a Management Plan?   | NO  |  |  |  |  |  |

Review will be completed in 30 days of receipt of request.

### **Additional Comments:**

| KNB 9/23/11 | _ | <br> |  |  |
|-------------|---|------|--|--|
|             |   |      |  |  |

### Dominion - Chesapeake Energy Center VA0004081 2701 Vepco Street, Chesapeake, VA Outfall and Stream Information CEDS Data 9/8/2011

| Permit Nc VA0004081 | VA000408 |             | Municipal/ Industria Industrial      |           | Major /Minor Major |            | Classification Application | plication      |           |
|---------------------|----------|-------------|--------------------------------------|-----------|--------------------|------------|----------------------------|----------------|-----------|
| Outfall             | River    | Water Body  | Water Body Receiving Stream Latitude | Latitude  | Latitude           | Latitude   | Longitude                  | Longitude      | Longitude |
| Number              | Mile     | - Maga(M H2 | 107                                  | (degrees) | (minutes)          | (seconds)  | s) (degrees)               | (minutes)      | (seconds) |
| 9                   | N        | VAT-G15E    | Deep Creek to                        | 36        | 45                 | 45         | 76                         | ፟              | <u></u>   |
|                     |          |             | Elizabeth River                      |           |                    |            |                            | E              |           |
| 002                 | 1.0      | VAT-G15E    | Deep Creek to                        | 36        | 45                 | 42         | 76                         | 18             | 15        |
| f                   |          |             | Elizabeth River                      |           |                    |            |                            |                |           |
| 003                 | .3       | VAT-G15E    | Southern Branch                      | 36        | 46                 | 23         | 76                         | 18             | 13        |
|                     |          |             | Elizabeth River                      |           |                    | ٠          |                            |                |           |
| 004                 | .30      | VAT-G15E    | Southern Brach                       | 36        | 46                 | 15         | 76                         | 18             | 0         |
|                     |          |             | Elizabeth River                      |           |                    |            |                            |                |           |
| 010                 | 1.0      | VAT-G15R    | Southern Branch                      | 36        | 46                 | <u>1</u> 5 | 76                         | 18             | 0         |
|                     |          |             | Elizabeth River                      |           |                    |            |                            |                |           |
| 011                 | .35      | VAT-G15R    | Southern Branch                      | 36        | 46                 | 30         | 76                         | 18             | 0         |
|                     |          |             | Elizabeth River                      |           |                    |            |                            |                |           |
| 012                 | .24      | VAT-G15R    | Southern Branch                      | 36        | 46                 | 23         | 76                         | <del>2</del> 8 | 0         |
|                     |          |             | Elizabeth River                      |           |                    |            |                            |                |           |
| 013                 | .23      | VAT-G15R    | Deep Creek to S                      | 36        | 45                 | 50         | 76                         | 18             | 15        |
|                     |          |             | Br Elizabeth River                   |           |                    |            |                            |                |           |
|                     |          |             |                                      |           |                    |            |                            |                |           |

|           |           |            |                                      | _         |                    |  |                     | •           |                                       |
|-----------|-----------|------------|--------------------------------------|-----------|--------------------|--|---------------------|-------------|---------------------------------------|
| Permit No | VA0004081 |            | Municipal/ Industrial Industrial     |           | Major /Minor Major | C  | lassification Appli | Application |                                       |
| Outfall   | River     | Water Body | Water Body Receiving Stream Latitude | Latitude  | Latitude           | Latitude   | Longitude           | Longitude   | Longitude                             |
| Number    | <b>≦</b>  |            | a September 1                        | (degrees) | (minutes)          | (seconds)  | (degrees)           | (minutes)   | (seconds)                             |
| 015       | 1.3       | VAT-G15R   | Deep Creek to S                      | 36        | 45                 | 57   | 76                  |             | 15                                    |
|           |           |            | Br Elizabeth River                   |           |                    |  |                     |             | · · · · · · · · · · · · · · · · · · · |
| 016       | 1.4       | VAT-G15R   | Southern Branch                      | 36        | 46                 | 0  | 76                  | 18          | 0                                     |
|           |           |            | Elizabeth River                      |           |                    | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,  |                     |             |                                       |
| 017       | 1.5       | VAT-G15R   | Southern Branch                      | 36        | 45                 | 57   | 76                  | 18          | 0                                     |
|           |           |            | Elizabeth River                      |           |                    | #P-7-7   |                     |             |                                       |
| 018       | 1.6       | VAT-G15R   | Deep Creel to S                      | 36        | 45                 | 50   | 76                  | 18          | 5                                     |
|           |           |            | Br Elizabeth River                   |           |                    |  |                     |             |                                       |
| 019       | 1.3       | VAT-G15E   | Southern Branch                      | 36        | 46                 | 15   | 76                  | 18          | 0                                     |
|           |           |            | Elizabeth River                      |           |                    |  |                     |             |                                       |
| 020       | 1.8       | VAT-G15E   | Southern Branch                      | 36        | 46                 | 15   | 76                  | 18          | 0                                     |
|           |           |            | Elizabeth River                      |           |                    | -<br>-<br>-<br>-<br>-  |                     |             |                                       |
| 030       | 1.8       | VAT-G15E   | Southern Branch                      | 36        | 46                 | 3  | 76                  | 18          | <u></u>                               |
|           |           |            | Elizabeth River                      |           |                    |  |                     |             |                                       |
| 031       | 1.7       | VAT-G15E   | Southern Branch                      | 36        | 46                 | 1  | 76                  | 18          | <u></u>                               |
|           |           |            | Elizabeth River                      |           |                    | and the second s |                     |             |                                       |
| 101       | 1.7       | VAT-G15R   | Deep Creek to S                      | 36        | 46                 | 1  | 76                  | 18          | <u></u>                               |
|           |           |            | Br Elizabeth River                   |           |                    |  |                     |             | ANAL                                  |
| 201       | 1.4       | VAT-G15R   | Deep Creek to S                      | 36        | 45                 | 42   | 76                  | 18          | 15                                    |
|           |           |            | Br Elizabeth River                   |           |                    | West of the second seco |                     |             |                                       |
| 206       | 1.5       | VAT-G15R   | Deep Creek to S                      | 36        | 45                 | 42   | 76                  | 18          | 15                                    |
|           |           |            | Br Elizabeth River                   |           |                    |  |                     |             |                                       |
| 301       | 1.2       | VAT-G15R   | Southern Branch                      | 36        | 46                 | 23   | 76                  | 18          | <u> </u>                              |
|           |           |            | of Elizabeth River                   | 944       |                    | -  |                     |             |                                       |
|           |           |            |                                      |           |                    |  |                     |             |                                       |

### ATTACHMENT 11

303(d) LISTED SEGMENTS



### 2010 Impaired Waters - 303(d) List

### Category 5 - Waters needing Total Maximum Daily Load Study

| James River Basi<br>Cause Group Code         | in<br>Water Name                        | Cause           | Estuary     | Reservoir | River   | Initial<br>List | TMDL<br>Dev. |
|--|---|-----------------|-------------|-----------|---------|-----------------|--------------|
| Impaired Use                                 | Cause                                   | Category        | (Sq. Miles) | (Acres)   | (Miles) | Date            | Date         |
| APPTF-SAV-BAY                                | Appomattox River                        |                 |             |           |         |                 |              |
| Aquatic Life                                 | Aquatic Plants (Macrophytes)            | 5A              | 2.705       |           |         | 2006            | 2010         |
| Shallow-Water Submerge<br>Aquatic Vegetation | ed Aquatic Plants (Macrophytes)         | 5A ,            | 2.705       |           |         | 2006            | 2010         |
| EBEMH-DO-BAY                                 | Eastern Branch Elizabeth River, Broad C | reek and Indian | River       |           |         |                 |              |
| Aquatic Life                                 | Oxygen, Dissolved                       | 5A              | 2.287       |           |         | 2006            | 2010         |
| Open-Water Aquatic Life                      | Oxygen, Dissolved                       | 5A              | 2.287       |           |         | 2006            | 2010         |
| ELIPH-DO-BAY                                 | Chesapeake Bay segment ELIPH (Elizab    | eth River Mains | stem)       |           |         |                 |              |
| Aquatic Life                                 | Oxygen, Dissolved                       | 5A              | 8.162       |           |         | 2006            | 2010         |
| Open-Water Aquatic Life                      | Oxygen, Dissolved                       | 5A              | 8.162       |           |         | 2006            | 2010         |
| G01E-01-BAC                                  | James River                             |                 |             |           |         |                 |              |
| Recreation                                   | Escherichia coli                        | 5A              | 1.466       |           |         | 1996            | 2010         |
|  | Escherichia coli                        | 5A              | 2.828       |           |         | 2006            | 2010         |
|  | Escherichia coli                        | 5A              | 1.964       |           |         | 2008            | 2010         |
| G01E-02-CHLA                                 | James River                             |                 |             |           |         |                 |              |
| Aquatic Life                                 | Chlorophyll-a                           | 5A              | 5.512       |           |         | 2008            | 2010         |
| Open-Water Aquatic Life                      | Chlorophyll-a                           | 5A              | 5.512       |           |         | 2008            | 2010         |
| G01E-03-PCB                                  | James River and Various Tributaries     |                 |             |           |         |                 |              |
| Fish Consumption                             | PCB in Fish Tissue                      | 5A              | 62.773      |           |         | 2002            | 2014         |
| ·  | PCB in Fish Tissue                      | 5A              | 1.837       |           |         | 2004            | 2016         |
|  | PCB in Fish Tissue                      | 5A              | 191.816     |           |         | 2006            | 2018         |
|  | PCB in Fish Tissue                      | 5D              |             |           | 7.50    | 2006            | 2018         |
|  | PCB in Fish Tissue                      | 5A              | 0.012       |           |         | 2008            | 2014         |
|  | PCB in Fish Tissue                      | 5A              | 0.003       |           |         | 2010            | 2018         |
| G01L-01-BAC                                  | Falling Creek Reservoir                 |                 |             |           | •       |                 |              |
| Recreation                                   | Escherichia coli                        | 5A              |             | 88.37     |         | 2008            | 2020         |
| G01L-01-PH                                   | Falling Creek Reservoir                 |                 |             |           |         |                 |              |
| Aquatic Life                                 | pH                                      | 5C              |             | 88.37     |         | 2010            | 2022         |
| G01R-01-BAC                                  | Goode Creek                             |                 |             |           |         |                 |              |
| Recreation                                   | Escherichia coli                        | 5A              |             |           | 1.25    | 2006            | 2014         |
| G01R-02-BAC                                  | Almond Creek                            |                 |             |           |         |                 |              |
| Recreation                                   | Escherichia coli                        | 5A              |             |           | 2.36    | 2006            | 2010         |
|  |   | <i>57</i> .     |             |           |         |                 |              |
| G01R-02-PH                                   | XVO and XVP (Almond Creek, UTs)         | <b>5</b> 0      |             |           | 0.54    | 2004            | 2016         |
| Aquatic Life                                 | рН                                      | 5A              |             |           | 0.54    | 2004            | 2010         |
| G01R-03-BAC                                  | Falling Creek                           |                 |             |           |         |                 | 6511         |
| Recreation                                   | Escherichia coli                        | 5A              |             |           | 3.11    | 2006            | 2014         |
| G01R-04-BAC<br>Recreation                    | Falling Creek Escherichia coli          | 5A              |             |           | 16.99   | 2006            | 2018         |
|  |   |                 |             |           |         |                 |              |
| <b>G01R-04-DO</b> Aquatic Life               | Falling Creek Oxygen, Dissolved         | 5A              |             |           | 0.98    | 2008            | 2020         |
| Final 2010                                   |   | 3.3a - 14       |             |           |         |                 |              |
|  |   |                 |             |           |         |                 |              |



### 2010 Impaired Waters - 303(d) List

### Category 5 - Waters needing Total Maximum Daily Load Study

| James River Bas<br>Cause Group Code<br>Impaired Use | in<br>Water Name<br>Cause   | Cause<br>Category            | Estuary<br>(Sq. Miles)          | Reservoir<br>(Acres) | River<br>(Miles) | Initial<br>List<br>Date | TMDL<br>Dev.<br>Date |
|---|---|------------------------------|---------------------------------|----------------------|------------------|-------------------------|----------------------|
| G14R-01-PH<br>Aquatic Life                          | Carbell Swamp - Upper<br>pH   | 5A                           |                                 | ·                    | 2.55             | 2002                    | 2014                 |
| G14R-02-BAC<br>Recreation                           | Carbell Swamp - Lower<br>Escherichia coli   | 5A                           |                                 |                      | 2.86             | 2010                    | 2022                 |
| G14R-02-DO<br>Aquatic Life                          | Carbell Swamp - Lower<br>Oxygen, Dissolved  | 5A                           |                                 |                      | 2.86             | 2008                    | 2020                 |
| G15E-01-01-EBEN                                     | Elizabeth River Southern Branch, Parad in SBEMH   | ise, Saint Julian,           | New Mill and                    | l Deep Creek         | s & unsegm       | nented es               | tuaries              |
| Aquatic Life  | Estuarine Bioassessments Estuarine Bioassessments   | 5A<br>5A                     | 2.256<br>0.854                  |                      |                  | 2004<br>2006            | 2016<br>2018         |
| G15E-01-01-TCDD<br>Fish Consumption                 | Elizabeth River Southern Branch and its Dioxin (including 2,3,7,8-TCDD)                         | tidal tributaries<br>5A      | 3.137                           |                      |                  | 2010                    | 2022                 |
| G15E-02-02-BAC<br>Recreation                        | Elizabeth River Upper Mainstem, Easter<br>Enterococcus<br>Enterococcus                          | n Branch, Broad<br>5A<br>5A  | l Creek, Sout<br>1.979<br>0.539 | hern Branch a        | and Paradis      | e Creek<br>1998<br>2006 | 2010<br>2018         |
| G15E-02-04-EBEN<br>Aquatic Life                     | Eastern Branch Elizabeth River, Broad (<br>Estuarine Bioassessments<br>Estuarine Bioassessments | Creek and Indian<br>5A<br>5A | 1.759<br>0.586                  |                      |                  | 200 <b>4</b><br>2006    | 2016<br>2018         |
| G15E-02-05-BAC<br>Recreation                        | Indian River tributary of Eastern Branch,<br>Enterococcus                                       | Elizabeth River<br>5A        | 0.268                           |                      |                  | 2002                    | 2014                 |
| G15E-03-01-EBEN<br>Aquatic Life                     | Elizabeth River Mainstem Estuarine Bioassessments Estuarine Bioassessments                      | 5A<br>5A                     | 4.528<br>3.440                  |                      |                  | 2004<br>2010            | 2016<br>2022         |
| G15E-04-01-BAC<br>Recreation                        | Western Branch, Elizabeth River<br>Enterococcus   | 5A                           | 2.021                           |                      |                  | 2004                    | 2016                 |
| G15E-04-02-EBEN<br>Aquatic Life                     | Western Branch Elizabeth River and Un<br>Estuarine Bioassessments<br>Estuarine Bioassessments   | segmented estu<br>5A<br>5A   | aries in WBE<br>0.562<br>2.166  | MH                   |                  | 2006<br>2010            | 2018<br>2022         |
| G15E-05-02-BAC<br>Recreation                        | Lafayette River<br>Enterococcus   | 5A                           | 1.558                           |                      |                  | 2002                    | 2014                 |
| G15E-06-01-BAC<br>Recreation                        | Hampton River<br>Enterococcus   | 5A                           | 0.545                           |                      |                  | 2010                    | 2022                 |
| G15E-06-03-BAC<br>Recreation                        | Hoffler Creek<br>Enterococcus   | 5A                           | 0.057                           |                      |                  | 2008                    | 2020                 |
| H01R-01-HG Fish Consumption                         | James River<br>Mercury in Fish Tissue   | 5A                           |                                 |                      | 15.55            | 2010                    | 2022                 |
| H02R-01-BAC<br>Recreation                           | Pedlar River<br>Escherichia coli  | 5A                           |                                 |                      | 9.46             | 2006                    | 2018                 |

Final 2010 3.3a - 22



### 2010 Impaired Waters - 303(d) List

### Category 5 - Waters needing Total Maximum Daily Load Study

| James River Basi<br>Cause Group Code<br>Impaired Use | i <b>n</b><br>Water Name<br>Cause      | Cause<br>Category | Estuary<br>(Sq. Miles) | Reservoir<br>(Acres) | River<br>(Miles) | Initial<br>List<br>Date | TMDL<br>Dev.<br>Date |
|--|--|-------------------|------------------------|----------------------|------------------|-------------------------|----------------------|
| JMSPH-DO-BAY   | James River CBP segment JMSPH and      | Tidal Tributaries | 3                      |                      |                  |                         |                      |
| Aquatic Life   | Oxygen, Dissolved                      | 5A                | 0.547                  |                      |                  | 2006                    | 2010                 |
| Open-Water Aquatic Life                              | Oxygen, Dissolved                      | 5A                | 0.547                  |                      |                  | 2006                    | 2010                 |
| JMSTFL-DO-BAY  | James River Tidal Freshwater (Lower) E | stuary            |                        |                      |                  |                         |                      |
| Aquatic Life   | Oxygen, Dissolved                      | 5A                | 0.123                  |                      |                  | 1994                    | 2010                 |
|  | Oxygen, Dissolved                      | 5A                | 28.981                 |                      |                  | 2006                    | 2010                 |
|  | Oxygen, Dissolved                      | 5A                | 0.049                  |                      |                  | 2008                    | 2010                 |
| Open-Water Aquatic Life                              | Oxygen, Dissolved                      | 5A                | 0.123                  |                      |                  | 1994                    | 2010                 |
|  | Oxygen, Dissolved                      | 5A                | 28.981                 |                      |                  | 2006                    | 2010                 |
|  | Oxygen, Dissolved                      | 5A                | 0.049                  |                      |                  | 2008                    | 2010                 |
| JMSTFL-SAV-BAY                                       | James River Tidal Freshwater (Lower) E | Estuary           |                        |                      |                  |                         |                      |
| Aquatic Life   | Aquatic Plants (Macrophytes)           | 5A                | 29.103                 |                      |                  | 2006                    | 2010                 |
|  | Aquatic Plants (Macrophytes)           | 5A                | 0.049                  |                      |                  | 2008                    | 2010                 |
| Shallow-Water Submerga                               | ed Aquatic Plants (Macrophytes)        | 5A                | 29.103                 |                      |                  | 2006                    | 2010                 |
|  | Aquatic Plants (Macrophytes)           | 5A                | 0.049                  |                      |                  | 2008                    | 2010                 |
| JMSTFU-DO-BAY  | James River Tidal Freshwater (Upper) I | Estuary           |                        |                      |                  |                         |                      |
| Aquatic Life   | Oxygen, Dissolved                      | 5A                | 7.773                  |                      |                  | 2010                    | 2010                 |
| Open-Water Aquatic Life                              | Oxygen, Dissolved                      | 5A                | 7.773                  |                      |                  | 2010                    | 2010                 |
| JMSTFU-SAV-BAY                                       | James River Tidal Freshwater (Upper) I | Estuary           |                        |                      |                  |                         |                      |
| Aquatic Life   | Aquatic Plants (Macrophytes)           | 5A                | 7.773                  |                      |                  | 2006                    | 2010                 |
| Shallow-Water Submerg<br>Aquatic Vegetation          | ed Aquatic Plants (Macrophytes)        | 5A                | 7.773                  |                      |                  | 2006                    | 2010                 |
| LAFMH-DO-BAY   | Chesapeake Bay segment LAFMH (Laf      | ayette River)     |                        |                      |                  |                         |                      |
| Aquatic Life   | Oxygen, Dissolved                      | 5A                | 2.163                  |                      |                  | 2006                    | 2010                 |
| Open-Water Aquatic Life                              | e Oxygen, Dissolved                    | 5A                | 2.163                  |                      |                  | 2006                    | 2010                 |
| SBEMH-DO-BAY   | Chesapeake Bay segment SBEMH (So       | uthern Branch, I  | Elizabeth Rive         | er)                  |                  |                         |                      |
| Aquatic Life   | Oxygen, Dissolved                      | 5A                | 3.195                  |                      |                  | 2006                    | 2010                 |
| Deep-Water Aquatic Life                              | Oxygen, Dissolved                      | 5A                | 2.446                  |                      |                  | 2006                    | 2010                 |
| Open-Water Aquatic Life                              | Oxygen, Dissolved                      | 5A                | 3.195                  |                      |                  | 2006                    | 2010                 |
| WBEMH-DO-BAY   | Chesapeake Bay segment WBEMH (W        | estern Branch, l  | Elizabeth Rive         | er)                  |                  |                         |                      |
| Aquatic Life   | Oxygen, Dissolved                      | 5A                | 2.817                  |                      |                  | 2006                    | 2010                 |
| Open-Water Aquatic Life                              | e Oxygen, Dissolved                    | 5A                | 2.817                  |                      |                  | 2006                    | 2010                 |
|  |  |                   |                        |                      |                  |                         |                      |

VA DEQ is transitioning from Fecal Coliform bacteria to Escherichia coli (fresh water) and Enterococci (salt water) for assessing the Recreation Use.

<sup>\*</sup> Multiple listings are due to the same impairments for different uses and/or different initial listing dates for adjacent waters.

### James River Basin

Cause Group Code: G01E-03-PCB

James River and Various Tributaries

Location: Estuarine James River from the fall line to the Hampton Roads Bridge Tunnel, including several tributaries listed below. Appomattox River up to Lake

Chesdin Dam

Bailey Creek up to Route 630

Chickahominy River up to Walkers Dam Skiffes Creek up to Skiffes Creek Dam

Pagan River and its tributary Jones Creek

Chuckatuck Creek

Nansemond River and its tributaries Bennett Creek and Star Creek

Hampton River

Willoughby Bay and the Elizabeth R. system (Western, Eastern, and Southern Branches and Lafayette R.) and tributaries St. Julian Creek, Deep Creek,

and Broad Creek

James City Co. Dinwiddie Co. Colonial Heights City Isle Of Wight Co. Chesterfield Co. Hopewell City Chesapeake City Henrico Co. City / County: Charles City Co. Hampton City

Norfolk City Newport News City Prince George Co. New Kent Co.

Suffolk City Richmond City

Virginia Beach City Portsmouth City

Williamsburg City

Use(s): Fish Consumption

PCB in Fish Tissue / 5D

The Fish Consumption Use is impaired based on the VDH fish consumption advisory for PCBs fish tissue contamination within the James River and select tidal tributaries, issued 12/13/04. During the 2002 cycle, the James River from the Fall line to Queens Creek was considered not supporting of the Fish Consumption Use due to PCBs in multiple fish species at multiple DEQ monitoring locations. VA Category: PCB in Fish Tissue / 5A

During the 2004 cycle, a VDH Fish Consumption Restriction was issued from the fall line to Flowerdew Hundred and the segment was adjusted slightly to match the Restriction. However, during the 2006 cycle, the restriction was extended on 12/13/2004 to extend from the I-95 bridge downstream to the Hampton Roads Bridge Tunnel and include the tidal portions of the following tributaries:

Appomattox River up to Lake Chesdin Dam Bailey Creek up to Route 630

Bailey Bay

Chickahominy River up to Walkers Dam

Skiffes Creek up to Skiffes Creek Dam

Pagan River and its tributary Jones Creek

Chuckatuck Creek

Nansemond River and its tributaries Bennett Creek and Star Creek

Hampton River

Willoughby Bay and the Elizabeth R. system (Western, Eastern, and Southern Branches and Lafayette R.) and tributaries St. Julian Creek, Deep Creek, and **Broad Creek** 

### James River Basin

The advisory was modified again on 10/10/2006 to add Poythress Run.

| James River and Various Tributaries                     | Estuary     | Reservoir | River   |
|---|-------------|-----------|---------|
|   | (Sq. Miles) | (Acres)   | (Miles) |
| Fish Consumption  |             |           |         |
| PCB in Fish Tissue - Total Impaired Size by Water Type: | 256.441     |           | 7.50    |
|   |             |           |         |

### Sources:

Contaminated Sediments

Source Unknown So

Sources Outside State Jurisdiction or Borders

James River Basin

Cause Group Code: G15E-01-01-EBEN

Elizabeth River Southern Branch, Paradise, Saint Julian, New Mill and Deep Creeks & unsegmented estuaries in SBEMH

Location: This cause encompasses the entirety of the Southern Branch Elizabeth River, Paradise, Saint Julian, New Mill and Deep Creeks and unsegmented estuaries in SBEMH.

Norfolk City City / County: Chesapeake City

Use(s): Aquatic Life

Cause(s) / VA Category: Estuarine Bioassessments / 5A

The Aquatic Life Use is impaired based on failure to meet a statistical evaluation constituting an un-impacted benthic organism population per CBP (Benthic-BIBI) analysis. The source/stressor tool yielded sediment contaminants as the suspected source for the impairment. This segment was previously included (2004 IR) in TMDL ID: VAT-G15E-01-09.

The TMDL due date is carried from the previous 2004 IR impairment identification date. Previous Use ID = VAT-G15E-01-09 for benthic impairment.

This Cause Code (G15E-03-01-EBEN) relates to all benthic impairments within the Elizabeth River system.

Estuary (Sq. Miles) Elizabeth River Southern Branch, Paradise, Saint Julian, New Mill and Deep Creeks & unsegmented estuaries in

River (Miles)

Reservoir (Acres)

Aquatic Life

Estuarine Bioassessments - Total Impaired Size by Water Type:

3.110

Sources:

Contaminated Sediments

Source Unknown

James River Basin

Cause Group Code: G15E-01-01-TCDD

Elizabeth River Southern Branch and its tidal tributaries

Location: This cause encompasses the entirety of the Southern Branch Elizabeth River and its tidal tributaries. CBP segment SBEMH.

Portsmouth City

Norfolk City City / County: Chesapeake City

Use(s): Fish Consumption

Cause(s) / VA Category: Dioxin (including 2,3,7,8-TCDD) / 5A

The Fish Consumption Use is impaired based on the VDH fish consumption advisory within the Southern Branch Elizabeth River and its tidal tributaries for Dioxin in Blue Crab hepatopancreas contamination, issued by the VDH 1/23/09.

Elizabeth River Southern Branch and its tidal tributaries Fish Consumption

Dioxin (including 2,3,7,8-TCDD) - Total Impaired Size by Water Type:

River (Miles)

Reservoir (Acres)

Estuary (Sq. Miles) 3,137

Sources:

Source Unknown

James River Basin

Chesapeake Bay segment SBEMH (Southern Branch, Elizabeth River) Cause Group Code: SBEMH-DO-BAY

Location: This cause encompasses the complete CPB segment SBEMH

Portsmouth City Norfolk City City / County: Chesapeake City Deep-Water Aquatic Life

Use(s): Aquatic Life

VA Category: Oxygen, Dissolved / 5A

Open-Water Aquatic Life

Virginia Beach City

The Aquatic Life and Open-Water Aquatic Life Use is impaired based on failure to meet the dissolved oxygen criteria for Open Water - Summer. The 30-day dissolved oxygen criteria for open water and deep water uses failed for the 2008 assessment. There is insufficient data to assess the remaining shorter-term dissolved oxygen criteria for these uses.

| Chesapeake Bay segment SBEMH (Southern Branch, Elizabeth River) Aquatic Life             | Oxygen, Dissolved - Total Impaired Size by Water Type: | Estuary<br>(Sq. Miles)<br>3.195 | Reservoir<br>(Acres) | River<br>(Miles) |
|--|--|---------------------------------|----------------------|------------------|
| Chesapeake Bay segment SBEMH (Southern Branch, Elizabeth River)  Deep-Water Aquatic Life | Oxygen, Dissolved - Total Impaired Size by Water Type: | Estuary<br>(Sq. Miles)<br>2.446 | Reservoir<br>(Acres) | River<br>(Miles) |
| Chesapeake Bay segment SBEMH (Southern Branch, Elizabeth River) Open-Water Aquatic Life  | Oxygen, Dissolved - Total Impaired Size by Water Type: | Estuary<br>(Sq. Miles)<br>3.195 | Reservoir<br>(Acres) | River<br>(Miles) |

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Internal Nutrient Recycling Wet Weather Discharges (Non-Point Source) Sources Outside State Jurisdiction or Borders Industrial Point Source Discharge Atmospheric Deposition -Municipal Point Source Discharges Combination of Stormwater, SSO or CSO) Wet Weather Discharges Loss of Riparian Habitat (Point Source and Agriculture

Final 2010

### **VIRGINIA**

305(b)/303(d)

### WATER QUALITY INTEGRATED REPORT

to

### CONGRESS and the EPA ADMINISTRATOR

for the

### **PERIOD**

January 1, 2003 to December 31, 2008





Richmond, Virginia
November 2010

### **TMDL Permit Review**

Date: 9/8/2011

To: Jennifer Howell, TRO √ JSH 9/21/2011

Permit Writer: Melinda Woodruff

Facility: Dominion - Chesapeake Energy Center

Permit Number: VA0004081

Issuance, Reissuance or Modification (if Modification describe): Reissuance

Permit Expiration Date: 1/23/2012

Waterbody ID (ex: VAT-G15E): VAT-G15E and VAT-G15R

Topo Name: Norfolk South

Facility Address:

2701 Vepco Street, Chesapeake, VA 23320

**Receiving Stream:** Attached are topographic maps showing facility property boundaries and outfall(s) locations for those included in this request.

| Stream Name: See Attached Application for all | outfall and stream information     |
|---|------------------------------------|
| Click here to enter text.                     |                                    |
| Outfall #: Click here to enter text.          | Lat Lon: Click here to enter text. |
| Outfall #: Click here to enter text.          | Lat Lon: Click here to enter text. |
| Outfall #: Click here to enter text.          | Lat Lon: Click here to enter text. |
| Stream Name (2): Click here to enter text.    |                                    |
| Click here to enter text.                     |                                    |
| Outfall #: Click here to enter text.          | Lat Lon: Click here to enter text. |
| Outfall #: Click here to enter text.          | Lat Lon: Click here to enter text. |
| Outfall #: Click here to enter text.          | Lat Lon: Click here to enter text. |

If greater than 2 receiving streams or 3 outfalls per stream please provide a separate table with outfall listings and Latitude Longitude description.

Is there a design flow change? If yes give the change. Click here to enter text.

#### TMDL Review:

| Is a TMDL IN PROGRESS for the receiving stream? Yes, PCB       |   |
|--|---|
| Has a TMDL been APPROVED that includes the receiving st        | ream?   |
| Yes – see below  |   |
| If yes, Include TMDL Name, Pollutant(s) and date of appro-     | val:  |
| 1) Chesapeake Bay TMDL EPA approved 12/29/2010: nitrogen, p.   |   |
| 2) Bacteria TMDL Development for the Elizabeth River Watershed | EPA approved 7/20/2010: enterococci                 |
|  |   |
| Is the facility assigned a WLA from the TMDL?                  | No – see notes below                                |
| If Yes, what is the WLA?                                       |   |
| 1) VA0004081 was listed in the Chesapeake Bay TMDL under       | Bay segment SREMH as a non-significant discharger P |

- 1) VA0004081 was listed in the Chesapeake Bay TMDL under Bay segment SBEMH as a non-significant discharger. Because an aggregated WLA exists, this permit did not receive an individual WLA. The aggregated WLA is presented as a delivered load for each of the impaired 92 Bay segments. (Appendix Q)
- 2) VA0004081 was listed in the Bacteria TMDL Development for the Elizabeth Watershed report (Appendix B) as a permitted facility within the watershed. No WLA was assigned to this permit.

### TMDL Permit Review

Review will be completed in 30 days of receipt of request.

| Additional Comments:      |  |
|---------------------------|--|
| Click here to enter text. |  |
|                           |  |

TABLE III(a) AND TABLE III(b) - CHANGE SHEETS

### TABLE III(a)

# VPDES PERMIT PROGRAM Permit Processing Change Sheet

Effluent Limits and Monitoring Schedule: (List any changes FROM PREVIOUS PERMIT and give a brief rationale for the changes). ĭ.

| DATE &<br>INITIAL                      | 11/1/11<br>MYW   |  |
|--|--|--|
| RATIONALE                              | Not a possible source because Petroleum coke is not stored on site or will not be stored on site during this permit term, per facility's request |  |
| EFFLUENT LIMITS CHANGED FROM / TO      | NL to removed from permit  |  |
| MONITORING LIMITS CHANGED<br>FROM / TO | 1/6 months to removed from permit  |  |
| PARAMETER<br>CHANGED                   | Total Chromium, hex chromium, total phenolics, dissolved nickel, total vanadium  |  |
| OUTFALL                                | 002 and 003  |  |

| OTHER CHANGES FROM:  | CHANGED TO:   | DATE &<br>INITIAL |
|--|---|-------------------|
| QLs listed in special condition for total chromium, total phenolics, dissolved nickel, total vanadium. | None  | 11/1/11<br>MYW    |
| Footnote [c] for Outfall 002 and footnote [e] Outfall 003 (on limits pages)                            | None  | 11/1/11<br>MYW    |
| Footnote [e] for Outfalls 003, 010, 011, 012, 016, 017, 030  | Add standard language regarding testing for TPH                                       | 11/1/11<br>MYW    |
| QL List in special conditions  | Added TPH (DRO/GRO) 0.5 mg/l /0.5 mg/l, per facility's request                        | 11/1/11<br>MYW    |
| Footnote [a] for Outfall 201   | Added Sample period is 30 days, as agreed upon during site visit                      | 11/1/11<br>MYW    |
| Special Condition E.l.and 2. for TMP - Outfall 010 required  | Outfall 010 removed from the requirement for the special condition E.1 and 2. For TMP | 11/1/11<br>MYW    |
|  |   |                   |

TABLE III(b)

## VPDES PERMIT PROGRAM Permit Processing Change Sheet

Effluent Limits and Monitoring Schedule: (List any changes MADE DURING PERMIT PROCESS and give a brief rationale for the changes).  $\vec{\vdash}$ 

| DATE &<br>INITIAL                      |     |  |  |  | DATE & INITIAL      |
|--|-----|--|--|--|---------------------|
| RATIONALE                              |     |  |  |  |                     |
| EFFLUENT LIMITS CHANGED<br>FROM // TO  |     |  |  |  | CHANGED TO:         |
| MONITORING LIMITS CHANGED<br>FROM / TO |     |  |  |  |                     |
| PARAMETER                              |     |  |  |  | GES FROM:           |
| OUTFALL                                | 001 |  |  |  | OTHER CHANGES FROM: |

### NPDES INDUSTRIAL PERMIT RATING WORKSHEET AND EPA PERMIT CHECKLIST

|  |   |   |   |  |                  | J                        |   | _x_                      |                              | Addition                                      |                   |
|--|---|---|---|--|------------------|--------------------------|---|--------------------------|------------------------------|---|-------------------|
|  | IO:   | _ _0_ _40_                                      | 81_1[                                     |  |                  |                          |   |                          | Score c                      | onary Addition<br>hange, but no<br>tus change |                   |
| Facility N                             | ame:  |   |   |  |                  |                          |   |                          | Deletion                     | )   |                   |
| _C_ _h_                                | _e_ s_ a_ _p_ _e_   | _a_ _k_   | _E_ _n_ _                                 | e <u> r g </u>                               | _y_ _            | Cent                     | er  | l                        | _                            | _   |                   |
| City: LC                               | <u> _h_ e_ s_ a_ p</u>  | _ _e_ _a_ _k                                    | _ _e_                                     |  |                  |                          |   | .[]                      |                              |   |                   |
| Receiving                              | Water:  _D_ _e_ _e  | _ _p_ C   | _r_e_                                     | _e_ _k_ _&_                                  | _ _S_            | <u> o u t h </u>         | _B_ _r_  E_   | _li                      | za_                          | <u> _b_ i_ t_ </u>                            | h  Rv.            |
| Reach Nu                               | ımber:  |   |   |  |                  |                          |   |                          |                              | •   |                   |
| vith one 1. Pow 2. A nu 3. Cool x_YES: | cility a steam electri<br>or more of the follow<br>er output 500 MW or<br>clear power plant<br>ling water discharge of<br>score is 600 (stop he | wing charact greater (not u greater than 2 ere) | eristics? sing a coo 5% of the NO (contin | oling pond/la<br>receiving str<br>nue)       | ,                | 's 7Q10 flow rate        | Is this perminate serving a popular yes; see                | p <i>ulati</i><br>ore is | <b>on great</b><br>700 (stop | er than 100,0                                 | torm sewer<br>00? |
|  |   | · · · · · ·                                     | -   |  |                  |                          |   |                          |                              |   |                   |
| PCS SIC                                | <u> </u>  |   | Primary                                   | SIC Code:                                    | l                |                          |   |                          |                              |   |                   |
| Other SIC                              |   |   |   | <u>                                     </u> |                  |                          | ]   |                          |                              |   |                   |
|  | Subcategory Code:   |   | -• `                                      | 000 if no sub                                |                  | <i>"</i>                 |   |                          |                              |   |                   |
| Determin                               | e the Toxicity poten  | itial from Ap <sub>l</sub>                      | oendix A.                                 | Be sure to                                   | use              | the TOTAL toxicit        | y potential column  | and o                    | check on                     | е   |                   |
| Foxicity (                             | Group Code  | Points  | Toxicity                                  | Group  | Cod              | e Points                 | Toxicity Group  | Cod                      | le Poi                       | ints  |                   |
|  | orocess<br>te streams 0<br>1<br>2   | 0<br>5<br>10                                    | 3.<br>4.<br>5.<br>6.                      |  | 3<br>4<br>5<br>6 | 15<br>20<br>25<br>30     | 7.<br>8.<br>9.  | 7<br>8<br>9<br>10        | 35<br>40<br>45<br>50         | )<br>5  |                   |
|  |   |   |   |  |                  |                          | Code Number Ch  | ecke                     | d:                           | _   |                   |
|  |   |   |   |  |                  |                          | Total Poir  | nts Fa                   | ctor 1:                      |   |                   |
| FACTO                                  | OR 2: Flow/Str  | eam Flow  | , Volum                                   | 1e (Compl                                    | ete F            | -<br>-ither Section A or | · Section B· check  | only                     | nne)                         |   |                   |
|  | –Wastewater Flow O  |   |   | ie (compr                                    | 0.0 .            |                          | astewater and Stream  | _                        | •                            | ered  |                   |
| Vastewa                                |   | my Genoider                                     | Code                                      | Points                                       |                  | Wastewater Type          | Percent of Instrear   |                          | Code                         | Points  |                   |
| See Inst                               |   | _ =   | 11<br>12<br>13                            | 0<br>10<br>20                                |                  | (See Instructions)       | Wastewater Conce<br>tration at Receiving<br>Stream Low Flow | en-                      | Code                         | Tomas   |                   |
|  | Flow > 50 MGD   |   | 14  | 30   |                  | Type I/III:              | < 10%   | _                        | 41                           | 0   |                   |
| Гуре II:                               | Flow < 1 MGD  |   | 21  | 10   |                  |                          | > 10% to < 50%  |                          | 42                           | 10  |                   |
|  | Flow 1 to 5 MGD<br>Flow > 5 to 10 MGD   |   | 22<br>23                                  | 20   |                  |                          | > 50%   |                          | 43                           | 20  |                   |
|  | Flow > 10 MGD   |   | 23<br>24                                  | 30<br>50                                     |                  | Туре II:                 | <10%  |                          | 51                           | 0   |                   |
| Type III:                              | Flow < 1 MGD  |   | 31  | 0  |                  |                          | > 10% to < 50%  |                          | 52                           | 20  |                   |
|  | Flow 1 to 5 MGD<br>Flow > 5 to 10 MGD<br>Flow > 10 MGD  | _   | 32<br>33<br>34                            | 10<br>20<br>30                               |                  |                          | > 50%   |                          | 53                           | 30  |                   |
|  |   |   |   |  |                  | Cod                      | de Checked from S   | ectio                    | n A or B:                    |   |                   |

Total Points Factor 2: |\_\_\_|

| FACTOR 3: Conventional Pollutants (only when limited by the permit)   |                                     | 1                              | NPDES No.: L                                | V_ _A_ _0_ _0_                           | 040                                  | _8_ _1_                    |
|---|-------------------------------------|--------------------------------|---|--|--------------------------------------|----------------------------|
| A. Oxygen Demanding Pollutant: (check one)  | BOD                                 | COD _                          | Other:                                      |  |                                      |                            |
| Permit Limits: (check one) < 100 lbs 100 to 10 >1000 to >3000 lbs   | /day<br>000 lbs/day<br>3000 lbs/day | Code Points 1 0 2 5 3 15 4 20  |   |  | Code Checked:                        | <u></u>                    |
|   |                                     |                                |   |  | Points Scored.                       | ŧ                          |
| B. Total Suspended Solids (TSS)   |                                     |                                |   |  |                                      |                            |
| Permit Limits: (check one)  | /day<br>000 lbs/day<br>5000 lbs/day | Code Points 1 0 2 5 3 15 4 20  | •   |  |                                      |                            |
|   |                                     |                                |   |  | Code Checked:<br>Points Scored:      |                            |
| C. Nitrogen Pollutant: (check one)Ammor   | nia Other                           |                                |   |  |                                      |                            |
| Permit Limits: (check one)  | day<br>000 lbs/day<br>3000 lbs/day  | Code Points 1 0 2 5 3 15 4 20  |   |  |                                      |                            |
|   |                                     |                                |   |  | Code Checked:<br>Points Scored:      |                            |
|   |                                     |                                |   | Total Points Fa                          | actor 3:                             |                            |
| FACTOR 4: Public Health Impact Is there a public drinking water supply located the receiving water is a tributary)? A public dr ultimately get water from the above referenced  YES (if yes, check toxicity potential number b NO (if no, go to Factor 5) | inking water sup<br>I supply.       | downstream c<br>oply may inclu | f the effluent disc<br>de infiltration gall | harge (this includ<br>eries, or other me | es any body of w<br>thods of conveya | ater to which<br>ince that |
| Determine the human health toxicity por Factor 1. (Be sure to use the human health  |                                     |                                |   |  | bcategory refe                       | rence as in                |
| Toxicity Group Code Points  | Toxicity Group                      | Code I                         | Points                                      | Toxicity Group                           | Code Point                           | s                          |
| No process waste streams 0 0 1. 1 0 2. 2 0  | 3.<br>4.<br>5.<br>6.                | 3<br>4<br>5<br>6               | 0<br>0<br>5<br>10                           | 7.<br>8.<br>9.<br>10.                    | 7 15<br>8 20<br>9 25<br>10 30        |                            |
|   | 4.                                  | ,                              |   | Code Number Ch<br>Total Points Fact      | (                                    |                            |

NPDES No.: | V | A | 0 | 0 | 0 | 4 | 0 | 8 | 1 |

| FA | CTOR 5: Water                  | <b>Quality Factors</b>   |  |                    | ··· I— ·—I— ·—I— ·-   |   |
|----|--------------------------------|--|--|--------------------|---|---|
| A. |                                |  | discharge limits based on wate<br>echnology-based state effluent |                    |   | stream (rather than technology-<br>llocation been assigned to the |
|    | Code Yes 1 No 2                | Points<br>10<br>0  |  |                    |   |   |
| В. | Is the receiving wa            | ater in compliance v   | vith applicable water quality sta                                | ndards for pollu   | itants that are wai   | ter quality limited in the permit?                                |
|    | Code<br>Yes 1<br>No 2          | Points<br>0<br>5   |  |                    |   |   |
| C. | Does the effluent of toxicity? | discharged from thi  | s facility exhibit the reasonable                                | potential to viol  | late water quality  | standards due to whole effluent                                   |
|    | Code<br>Yes 1<br>No 2          | Points<br>10<br>0  | ·  |                    |   |   |
|    | Cod                            | e Number Checked Points Factor 5:                                  | <del></del>  | c                  | =     TO  | DTAL  |
| FΑ | CTOR 6: Prox                   | cimity to Near   | Coastal Waters   |                    |   |   |
| A. |                                | r flow code here (fro  | om Factor 2):    Enter ti  | ne multiplication  | n factor that corre   | sponds  |
|    | Check appropriate t            | facility HPRI Code (fr   | om PCS):   |                    |   |   |
|    | HPRI# Coo                      | le HPRI Score  | Flow Code  | Multiplication     | Factor  |   |
|    | 1 1                            | 20   | 11, 31, or 41  | 0.00               |   |   |
|    | 2 2                            | 0  | 12, 32, or 42<br>13, 33, or 43                                   | 0,05<br>0.10       |   |   |
|    | 3 3                            | 30   | 14 or 34<br>21 or 51   | 0.15<br>0.10       |   |   |
|    | 4 4                            | 0  | 22 or 52<br>23 or 53   | 0.30<br>0.60       |   |   |
|    | 5 5                            | 20   | 24   | 1.00               |   |   |
|    | HPRI code checke               | ed:  |  |                    |   |   |
|    | Base Score: (HPR               | RI Score)  | _ x (Multiplication Factor)                                      | =                  | (TOTAL PO   | DINTS)  |
|    |                                |  |  |                    |   |   |
| В. | discharge to one               | has an HPRI code o<br>of the estuaries enro<br>n (NEP) program (se | f 3, does the facility for a fa<br>olled in the National fac     | cility that has ar | -Great Lakes Are<br>n HPRI code of 5,<br>any of the polluta<br>areas of concern |   |
|    | Cod                            |  | Van  | Code               | Points  |   |
|    | Yes 1<br>No 2                  | 10<br>0  | Yes<br>No  | 1<br>2             | 10<br>0   |   |
|    | Code Nun                       | nber Checked:  | A  | C []               |   |   |
|    |                                | Points Factor 6:   | A     + B  | + C                | _  =  | TOTAL   |

NPDES NO: |V|A|0|0|0|4|0|8|1|

#### **SCORE SUMMARY**

|     | Factor                     | Description  | Total Points   |
|-----|----------------------------|--|--|
|     | 1<br>2<br>3<br>4<br>5<br>6 | Toxic Pollutant Potential<br>Flow/Stream flow Volume<br>Conventional Pollutants<br>Public Health Impacts<br>Water Quality Factors<br>Proximity to Near Coastal Waters<br>TOTAL (Factors 1-6) |  |
| S1. | Is the tot                 | al score equal to or greater than 80?  | ? _x_Yes (Facility is a major) No  |
| S2. | If the ans                 | swer to the above question is no, wo<br>No<br>Yes (add 500 points to the above s<br>Reason:  | score and provide reason below:  |
|     |                            | NEW SCORE:600  | Melinda Woodruff Permit Reviewer's Name  ( 757 ) 518 - 2174 Phone Number |
|     |                            |  | October 28, 2011 Date  |

CHRONOLOGY SHEET

### Attachment 14 Chronology of Events November 15, 2011

| NPIO VA0004081 | Facility Name Dominion - Chesapeake Energy Center  | Activity Reissuance  | Accessions to the second secon |
|----------------|--|--|--|
| Code           | Event  | Date   | Comment:   |
| APDU           | Reissuance application due                         | 07/27/2011   |  |
| PNOT           | Date of Public Notice                              |  |  |
| APRET3         | App returned/Additional info requested 3rd time    |  | na   |
| VPDESNO        | Permit number obtained (Iss)                       |  | na   |
| DTREV          | Draft reviewed                                     |  |  |
| DTADJ          | FS/SOB/draft permit sent to adj. State(s)          |  | 1  |
| DTOWN1         | FS/SOB draft permit sent to owner                  |  |  |
| DTOWN2         | FS/SOB draft permit sent to owner 2nd time         |  |  |
| DTLP           | Reissuance letter mailed                           |  |  |
| RORTTC         | Riparian owner request sent to tax commissioner    |  | na   |
| ROLISTR        | Riparian owner list received                       |  | na   |
| APRET4         | App returned/Additional info requested 4th time    | a de la companya de l | па   |
| APCOMLET       | App complete letter sent to permittee              | 09/20/2011   |  |
| DTDDP          | Draft permit developed                             | 11/14/2011   |  |
| DTC2VDH        | VDH concurrence on draft permit                    |  |  |
| DTOWNC2        | Second time comments received from owner           | · v  |  |
| DTNEWS         | Public notice letter sent to newspaper             |  |  |
| PNHEAR         | Public hearing date                                |  |  |
| DTSIGN         | Date Permit signed                                 |  |  |
| FLED           | Permit expires                                     |  |  |
| 316A           | 316(a) Variance                                    |  |  |
| MISC           | Miscellaneous                                      | 09/08/2011   | Application sent to planning and TMDL review   |
| APRET1         | App returned/Additional info requested 1st time    |  | ла   |
| DTEPA          | FS/SOB draft permit sent to EPA/OWPS               | CONTRACTOR OF THE PROPERTY OF  |  |
| DTOBJ1         | First time comments received from owner on draft   |  | A COMMENT OF THE PROPERTY OF T |
| DTOWN3         | FS/SOB draft permit sent to owner 3rd time         |  |  |
| DTOWN4         | FS/SOB draft permit sent to owner 4th time         |  |  |
| APRPHOCAL1     | First Application Reminder Phone Call              | 05/05/2011   |  |
| APRD4          | Applic/Additional info received at RO 4th time     |  | na   |
| DT1VDH         | App sent to State Agencies (list in comment field) | 08/17/2011   | VDH, DSS, VMRC   |
| DTSITE         | Site visit   | 09/15/2011   | 10/24/2011   |
| DT1VIMS        | VMRC concurrence on draft permit                   |  |  |
| PN2CO          | PN sent to CO for mailing list web site distrib    |  |  |
| PREVFLED       | Old expiration date                                | 01/23/2012   |  |
| DTPKVDH        | FS/SOB draft permit sent to State Agencies (list i |  |  |
| RONOTE         | Riparian landowners notified (Iss,Mod)             | ***************************************  | na   |
| APRET2         | App returned/Additional info requested 2nd time    |  | na   |
| APRD3          | Applic/Additional info received at RO 3rd time     |  | na   |
| DT1PLAN        | FS/SOB draft permit sent to planning               |  |  |
| DTEFF          | Permit effective                                   |  | A CONTRACTOR OF THE PROPERTY O |
| DTDMRDUE       | First DMR due                                      |  |  |
| FAMSUB         | Financial Assurance Mechanism Submitted            |  | па   |
| ROAPCP         | Application Administratively complete              | 08/03/2011   |  |
| DTC2EPA        | EPA concurrence on draft permit                    |  |  |
| DTOWNC4        | Owner concurrence of draft permit                  |  |  |
| DTPNAUT        | Public notice authorization received from owner    | 09/26/2011   |  |

| NPID VA0004081 Facility Name Dominion - Chesapeake Energy Center Activity Reissuance |   |            |          |  |  |  |
|--|---|------------|----------|--|--|--|
| Code   | Event:  | Date       | Conment. |  |  |  |
| LGNPERM  | Local gov't notification                              |            |          |  |  |  |
| SCCERTR  | State Corporation certification received              |            | . na     |  |  |  |
| DEPFEE   | Application fee deposited na                          |            |          |  |  |  |
| DTC1VDH  | Comments rec'vd from State Agencies on App 09/19/2011 |            |          |  |  |  |
| DTCOE  | Comments rec'vd from Federal Agencies on App          |            |          |  |  |  |
| DTPLAN   | Planning concurrence on draft permit                  |            |          |  |  |  |
| APRPHOCAL2   | Second Application Reminder Phone Call                | 05/11/2011 |          |  |  |  |
| APRD   | Application received at RO 1st time                   | 07/05/2011 | 6/30/11  |  |  |  |
| APRD2  | Applic/Additional Info received at RO 2nd time        |            | na       |  |  |  |
| DTMIF  | App sent to Fed Agencies (list in comment field)      |            |          |  |  |  |
| APCP   | Application totally / technically complete            | 09/19/2011 |          |  |  |  |
| DTSITERP   | Site inspection report                                | 10/18/2011 |          |  |  |  |
| DTOWNC3  | Third time comments received from owner               |            |          |  |  |  |
| LGNRAPP  | local gov't notified of receipt of app. (Iss/Mod)     |            | na       |  |  |  |

PUBLIC PARTICIPATION